

*Session Code: WSV 200*

***web/services***

# ASP.NET: Overview of ASP.NET Whidbey

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**PDC**<sup>03</sup>

Make the connection

# Agenda

- Whidbey Overview
  - ASP.NET “Whidbey” Features
  - Visual Studio “Whidbey” Web Development
- Building an App from Scratch using Whidbey:
  - Rich Data Editing against Business Objects
  - Output Caching w/ Database Invalidation
  - Consistent Site UI with Master Pages
  - Flexible Navigation UI
  - Secure Membership and Login System
  - Page Personalization w/ ASP.NET Web Parts

# Download Slides/Demos

[http://www.asp.net/  
whidbey](http://www.asp.net/whidbey)

# ASP.NET Whidbey Themes

- Developer Productivity
  - ▣ Reduce ASP.NET V1->V2 lines of code by 2/3rds
  - ▣ Enable rich scenarios not easily possible today
- Administration and Management
  - ▣ Easiest platform to manage and administer
- Totally Extensible Platform
  - ▣ Replace/extend all built-in features + services
  - ▣ Customize for any enterprise environment
- Performance and Scalability
  - ▣ The world's fastest web application server

# Whidbey Web Application

# demo

# ASP.NET 2.0 Developer Stack

**ASP.NET Configuration Settings**

General | Custom Errors | Authorization | Authentication | Application | State Management | Advanced

**Authentication Settings**

Authentication mode: Forms

Forms Authentication

Http cookie name: .ASPXAUTH

Login URL: login.aspx

Cookie protection: All Cookie timeout: 00:30:00

☐ Require SSL ☒ Enable sliding expiration

**Membership**

Membership provider class: AspNetSqlProvider

Manage providers

**Roles**

☒ Role management enabled

Role provider class: AspNetAccessProvider

Manage providers

OK Cancel Apply Help

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ricks")  
Windows

# ASP.NET 2.0 Developer Stack

## New ASP.NET Whidbey “Building Block” APIs

**Membership**

**Role Manager**

**Personalization**

**Site Navigation**

**Database  
Caching**

**Management**

### Provider Model Design Pattern

```
public class MyCustomMembershipStore: IMembershipProvider {  
    // Todo: Implement IMembershipProvider API  
}  
  
public class MyCustomRoleStore: IRoleProvider {  
    // Todo: Implement IRoleProvider API  
}
```

# ASP.NET 2.0 Developer Stack

## New ASP.NET Whidbey “Building Block” APIs

**Membership**

**Role Manager**

**Personalization**

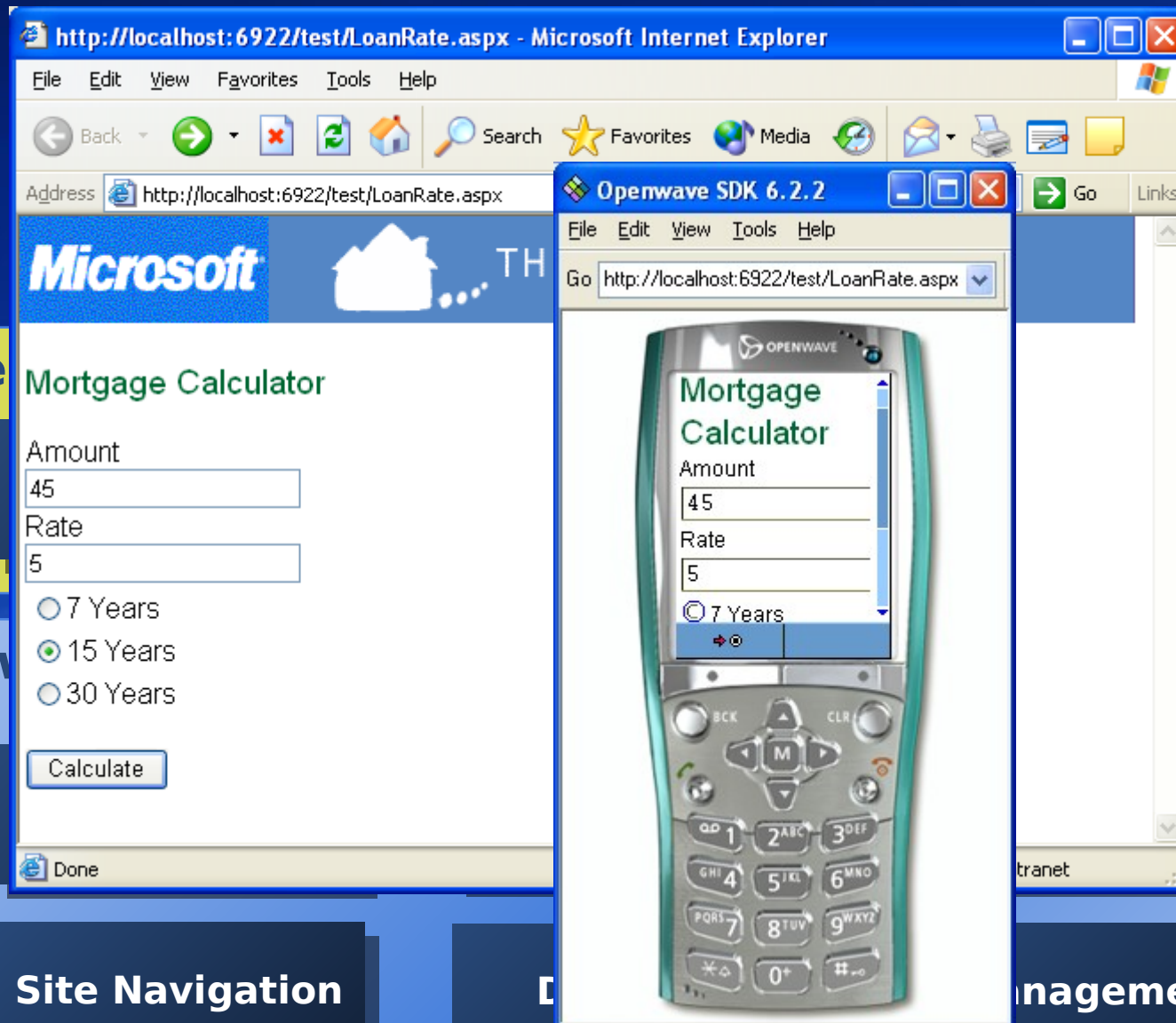
**Site Navigation**

**Database  
Caching**

**Management**



# ASP.NET 2.0 Developer Stack



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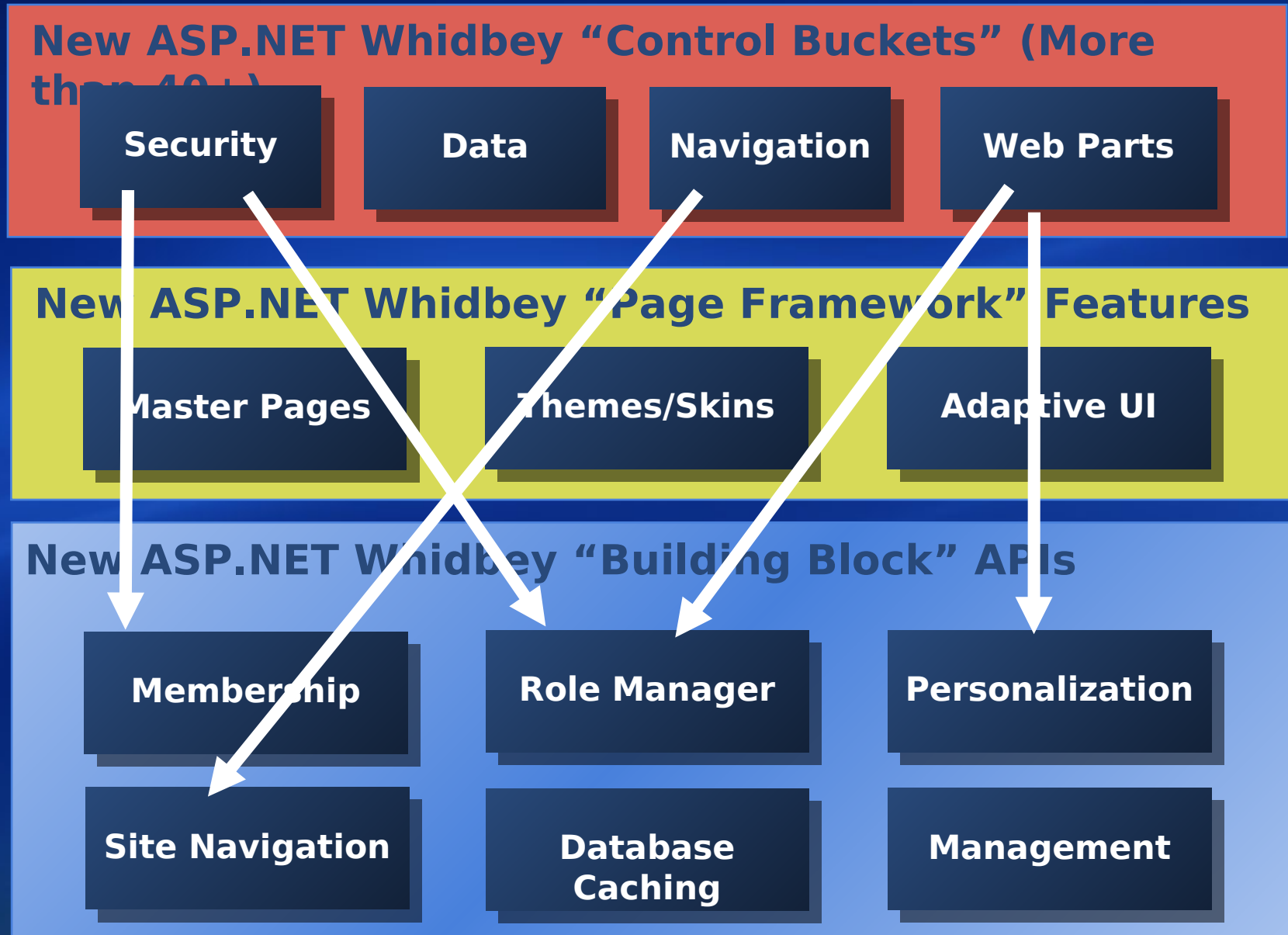
ion

Site Navigation

Managing

Management

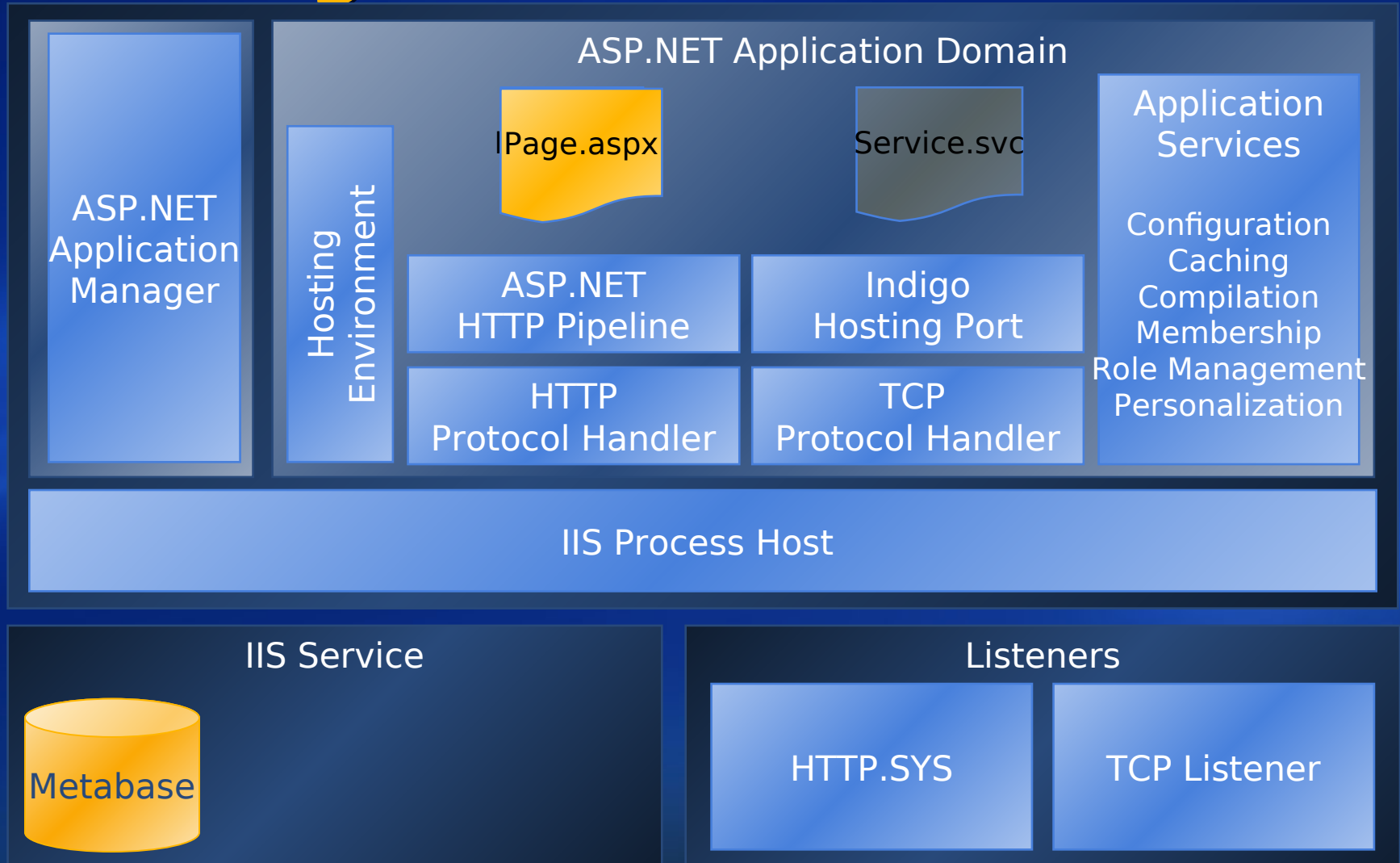
# ASP.NET 2.0 Developer Stack



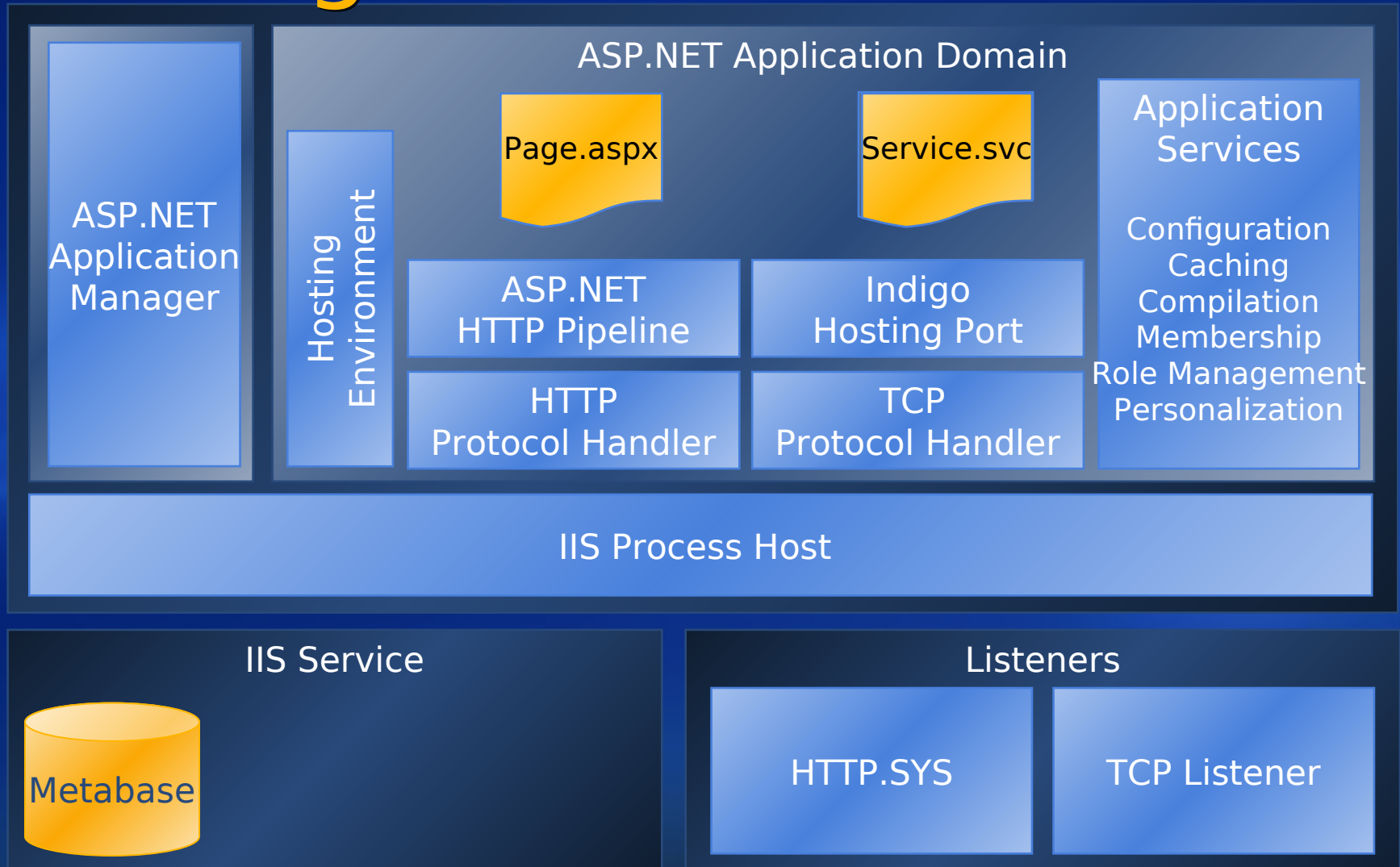
# ASP.NET Application Hosting

- ASP.NET App-Model extended to support non-HTTP
  - Key Scenario: Indigo Services
- Unified Application Model for Web/Service Apps
  - Membership and Role Management
  - State Management
  - Caching
  - Configuration and Management
  - Process Activation, Reliability and Recycling
  - Health Monitoring
- Great Host for Building/Running Indigo Services

# ASP.NET Activation + Hosting



# ASP.NET Activation + Hosting



# Web Development in Visual Studio

## Major Improvements for Whidbey

- FrontPage Server Extensions No Longer Required
  - Now File System, IIS, FTP *and* FPSE Web Sites
- Directory Based Project System Model
  - Edit any web anywhere (no project file required)
  - Dramatic performance improvements with large web sites
  - No longer required to build entire site into a single DLL
  - Can now re-build just individual pages to test and run
- HTML Source Preservation
  - Tool will never re-format or mangle your code



# W St Ma



Server tag does not support cor

Server tag does not support cor

Client tag does not support c

Client tag does not support cont



body

| tr |  |
  |

Closing tag:

☐ No cl

- ☒ Use self-closing

- ☐ Use separate dosing

.....

.....

1.5

Help

# Web Development in Visual Studio

## Major Improvements for Whidbey

- Intellisense Everywhere
  - Code behind, Inline code, HTML, CSS, ASP.NET page directives, Web.config, XML Files, etc



- Pointer
- Label
- TextBox
- Button
- LinkButton
- ImageButton
- HyperLink
- DropDownList
- ListBox
- ☒ CheckBox
- CheckBoxList
- RadioButton
- RadioButtonList
- Image
- DynamicImage
- ImageMap
- Table
- BulletedList
- HiddenField

```
<%@ page language="VB" %>
<html>
<body>
    <form id="form1" runat="server">
        <asp:xml runat="server"></asp:xml>
    </form>

    <table>
        <tr id="sequence" >...</tr>
    </table>

</body>
</html>
```

- C:\Documents and Settings\...
  - code
    - breakpoint.aspx
    - Default.aspx
    - Default4.aspx
    - HTMLPage.htm
    - HTMLPage2.htm
    - MasterPage.master
    - Microsoft Web-Hom...
    - mydata.aspx
    - mydata2.aspx
    - myimage.aspx
    - surrogate\_test.htm
    - Web.Config
    - web7.sln
    - WebForm1.aspx
    - WebService.asmx
    - WebService2.asmx
    - WebServiceCS.asmx
    - WebServiceVB.asmx
    - weirdassert.aspx

Toolbox

Core

Data

Personalization

Security

Validation

Navigation

HTML

Pointer

Label

Button

Reset Button

Submit Button

Text Field

File Field

Password Field

Checkbox

Radio Button

Hidden

Table

Image

Listbox

Dropdown

Clipboard Ring

General

BradA/Brad.aspx

Server Objects & Events (No Events)

```
1 <%@ page language="C#" validaterequest="true" %>
2
3 <html>
4 <head runat="server">
5 <title>Untitled Page</title>
6 </head>
7 <body>
8 <form runat="server" action="brad.aspx">
9
10 <asp:label id="Label1" runat="server" font-
11
12 <table cellpadding="1" cellspacing="1" border="1">
13 <tr>
14 <td width="100">
15
16 </td>
17 </tr>
18 </table>
19
20 <br />
21 <br />
```

The World-Wide-Web Consortium now regards the attribute 'width' as outdated. Newer constructs are recommended.

Validation: XHTML 1.0 Transitional (Netscape 7, Opera 7, Internet Explorer 6)

Solution Explorer

- Articles
- Data
- Images
- PhotoAlbum
- SiteReports
- Annotations.aspx
- app.sitemap
- Brad.aspx
- changepassword.aspx
- contact.aspx
- default.aspx
- login.aspx
- pagenotfound.aspx
- passwordreminder.aspx
- readme.txt
- register.aspx
- sitetemplate.master
- web.config

Properties

DOCUMENT

Dir

EnableSessionState: True

EnableViewState: True

EnableViewState: False

ErrorPage

Keywords

Language: C#

LCID

LeftMargin

Link

Master

PageLayout: FlowLayout

Task List - 3 tasks

!	Description	File	Line
	Click here to add a new task		
⚡	The element 'html' is missing a required attribute 'xmlns'.	Brad.aspx	3
⚡	The World-Wide-Web Consortium now regards the attribute 'width' as outdated. Newer constructs are recommended.	Brad.aspx	14
⚡	The file 'Annotation.aspx?bookid={0}' is not found.	Brad.aspx	33

WebSite1 - Microsoft Development Environment

File Edit View Website Build Debug Tools Window Help

Internet Explorer 3.02 /

Toolbox

- Core
  - Pointer
  - Label
  - TextBox
  - Button
  - LinkButton
  - ImageButton
  - HyperLink
  - DropDownList
  - ListBox
  - CheckBox
  - CheckBoxList
  - RadioButton
  - RadioButtonList
  - Image
  - DynamicImage
  - ImageMap
  - Table
  - BulletedList
  - HiddenField
  - Literal
  - TreeView
  - Calendar
  - AdRotator
- Data
- Personalization
- Security
- Validation
- Navigation
- HTML
- General

default.aspx sitemplate.master

Server Objects & Events (No Events)

```
<td height="60" width="100" valign="middle" align="middle">
    &nbsp; <a href="~/default.aspx" runat="server">
        <asp:image id="image1" imageurl="images/topworldicon.gif" runat="s
    <td height="60"><span id="SiteTitle">&nbsp; My Internet Site</span></td>
<td width="360" height="60" align="right">
    <asp:loginview id="LoginView1" runat="server">
        <loggedintemplate>

    <table border="0" height="60" width="270" cellpadding="0" cellspacing="0">

        <tbody>
            <tr>
                <td width="50">
                </td>
                <td align="middle" height="18" width="69" valign="
                    <asp:loginstatus id="Loginstatus1" runat="serv
                        forecolor="#043ca2" logoutpageurl="loginpa
                        logoutimageurl="images/logout.gif"></asp:l

                <td align="middle" height="18" style="WIDTH: 6px">
                <td align="middle" height="18" style="WIDTH: 6px">
```

Design Source Server Code <html> <body> <form#form1> <table> <tbody> <tr> <td>

Task List - 44 Build Error tasks shown (filtered)

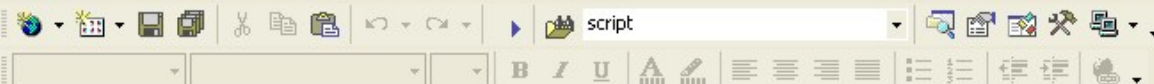
	Description	File	Line
	Click here to add a new task		
	example, do not use <div> to display cell contents as centered and bold.		
	warning (WCAG 5.4) : If this table is used for layout, do not use a structural format for visual formatting. For example, do not use <th> to display cell contents as centered and bold.	sitemplate.master	259
!	warning (WCAG 6.1) : If you are using style sheets, verify that this document can be read with style sheets turned off.	sitemplate.master	8
!	warning (WCAG 6.3) : Be sure this page is usable when programmatic objects are turned off or not supported. If not, provide alternative text that describes the information that the element conveys.	sitemplate.master	2
	warning (WCAG 7.3) : Avoid moving content or allow users to control the movement.	sitemplate.master	2

Ready Ln 127 Col 21 Ch 21

# Web Development in Visual Studio

## Major Improvements for Whidbey

- Rich HTML Designer Enhancements
  - Enhanced Table Editing and Creation
  - Clean CSS Style Generation for XHTML Compliance



default.aspx | sitetemplate.master\*

# My Internet Site

[login](#) | [register](#) | [contact](#)

[UserName]

[Root Node](#) > [Parent Node](#) > [Current Node](#)

## Content - sitecontent

# My Internet Site

This project template enables you to quickly jumpstart the development of Internet web applications using Visual Studio and ASP.NET.

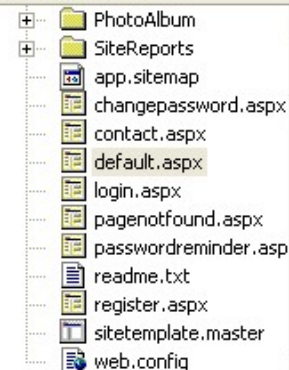
It provides a pre-configured template that includes an Internet security membership system, a site navigation architecture for optimized site layout/organization, a ad-banner system with impression/clickthrough tracking and reporting, and a master page template design that enables developers to quickly modify the look and feel of a site without recoding.



## Articles

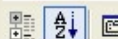
## Links

Solution Explorer



Properties

DOCUMENT



ASPCompat

Buffer	True
ClientTarget	
CodePage	
ContentType	
Culture	
Debug	False
Description	
EnableSessionState	True
EnableViewState	True
EnableViewState	False
ErrorPage	
Language	VB
LCID	

Design | Source | Server Code

Validation: Internet Explorer 6.0

# Web Development in Visual Studio

## Major Improvements for Whidbey

- Rich HTML Designer Enhancements
  - Enhanced Table Editing and Creation
  - Clean CSS Style Generation for XHTML Compliance
- Rich Master Page Design-Time Support
  - Full WYSIWYG Editing Support
- Enhanced ASP.NET Code-Behind Page Editing
  - Cleaner and more OO code editing support
  - Removes brittleness of current tool wire-up
- ASP.NET Single File Page Editing Support
  - Full intellisense and debugging support



# Web Development in Visual Studio

## Major Improvements for Whidbey

- Built-in ASP.NET Web Server (no IIS required)
  - Only allows local browser requests
  - Automatic shutdown when VS IDE is closed

# WebSite1 - Microsoft Development Environment

File Edit View Project Build Debug Tools Window Help

default.aspx\* sitetemplate.master Publish C:\WebSites\WebSite1\

Move files:

All source web files to remote web site

Publish Web site

Stop

To move individual files, use the directional buttons below.

Last refresh: 10/10/2003 18:34:02

Source Web site:

C:\WebSites\WebSite1

Name	Status	Modified
Advertisements		
Articles		
Data		
Images		
PhotoAlbum		
SiteReports		
→ app.sitemap	New	10/10/2003 18:25:01
changeassw...	Unchanged	10/10/2003 18:24:59
contact.aspx	Unchanged	10/10/2003 18:25:00
default.aspx	Unchanged	10/10/2003 18:25:02
login.aspx	Unchanged	10/10/2003 18:25:00
pagenotfound...	Unchanged	10/10/2003 18:25:00
→ passwordremi...	New	10/10/2003 18:25:00
→ readme.txt	New	10/10/2003 18:25:01
→ register.aspx	New	10/10/2003 18:25:01
→ sitetemplate.m...	New	10/10/2003 18:25:01
→ web.config	New	10/10/2003 18:25:01

Remote Web site:

ftp://scottguw3k/

ftp://scottguw3k/

Name	Status	Modified
images		
changeassw...	Unchanged	10/10/2003 18:33:00
contact.aspx	Unchanged	10/10/2003 18:33:00
default.aspx	Unchanged	10/10/2003 18:33:00
login.aspx	Unchanged	10/10/2003 18:33:00
pagenotfound...	Unchanged	10/10/2003 18:34:00

Move status:

Publish from 'C:\WebSites\WebSite1' to 'ftp://scottguw3k/' is finished. Completed at 10/10/2003 18:34:02.

[View Log...](#)

Ready

Solution Explorer - C:\Web...

Solution 'WebSite1' (1 project)

- C:\WebSites\WebSite1\
  - Advertisements
  - Articles
  - Data
  - Images
  - PhotoAlbum
  - SiteReports
  - app.sitemap
  - changepassword.aspx
  - contact.aspx
  - default.aspx
  - login.aspx
  - pagenotfound.aspx
  - passwordreminder.aspx
  - readme.txt
  - register.aspx
  - sitetemplate.master
  - web.config



# WSM

## DataLayer - Microsoft Development Environment

File Edit View Project Build Debug Data Tools Window Help

Debug .NET

Toolbox

DataSource

- Pointer
- DataComponent
- Query
- DataTable
- Relation

General

Server Explorer

- Suppliers
- Territories
- Views
- Stored Procedures
- CustOrderHist
  - @CustomerI
- CustOrdersData
- CustOrdersOrder
- Employee Sales I
- NewSelectComm
- Sales by Year
- SalesByCategory

CustomerOrderPage.aspx

NorthwindDataSet.xsd\*

### Customers

CustomerID  
CompanyName  
ContactName  
ContactTitle  
Address  
City  
Region  
PostalCode  
Country  
Phone  
Fax

### CustomersDataCompon

Fill ()

### CustOrderHist

ProductName  
Total

### CustOrderHistDataCom

Fill (CustomerID)

### Orders

OrderID  
CustomerID  
OrderDate  
RequiredDate  
ShippedDate  
ShipVia  
Freight

### OrdersDataComponent

Fill ()

Add Query...

Configure...

Delete

Preview Data...

View Code

Properties

Solution Explorer - Soluti...

- Solution 'DataLayer' (2 projects)
- DataLayer**
  - AssemblyInfo.vb
  - NorthwindDataSet.xsd
- E:\WebSites\CustomerTracker
  - Data
  - CustomerOrderPage.aspx

Solution Expl... Class View

Properties

Fill Query

FillMethodMoc Public

FillMethodNan Fill

GenerateMeth Both

GeneratePagi True

GetMethodMc Public

GetMethodNa GetData

Data

CommandTex SELECT \* FRO

CommandTex Task

### CommandText

The query or stored procedure to be executed by this method

Ready

# Writing Code w/ Whidbey

## demo

- Building a Whidbey app from scratch:
  - Data Editing (paging, sorting, editing)
  - Data Binding to Business Objects
  - SQL Output Cache Invalidation
  - Master Pages
  - Site Navigation + Navigation Controls
  - Membership + Login Controls
  - Page Personalization w/ Web Parts

# Summary

- Major advances in ASP.NET Whidbey
  - Will be 100% compatible with ASP.NET V1 and V1.1
  - Will run on IIS5, IIS5.1 and IIS6.0 (no OS upgrade req)
- Building and running web applications will be easier than ever before
  - Develop web applications in a fraction of the time
  - Developers can focus on adding even more value-add (personalization, dynamic UI, etc) to their applications
- Install the ASP.NET + Visual Studio Whidbey Alpha
  - All demos today were built with the bits you now

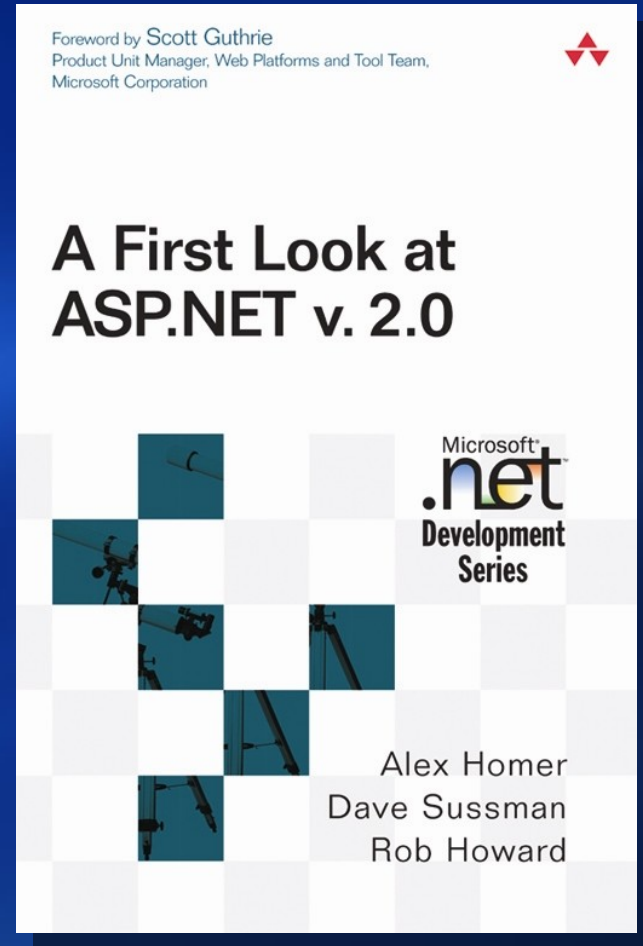
# ASP.NET Whidbey Talks To See

• Great ASP.NET Whidbey Talks at PDC (18 total)

- WSV 310+311: ASP.NET Data Controls
- WSV 315: ASP.NET Master Pages, Themes, Navigation
- WSV 322: ASP.NET Web Parts
- TLS 341: Visual Studio for Building ASP.NET Web Apps
- WSV 320: ASP.NET Membership and Role Management
- WSV 321: ASP.NET Personalization System
- WSV 330: ASP.NET Advanced Caching Techniques
- MBL 313: ASP.NET Mobile Web Development
- WSV 350: ASP.NET Administration, Config APIs
- WSV 351: ASP.NET Troubleshooting, Auditing, Tracing
- WSV 370: Building Indigo Services within ASP.NET

# ASP.NET Whidbey Book

- Now available
- 13 Chapters, 470 Pages
- Topics Covered
  - Introduction, Tools & Architecture, Data Source Controls and Data Binding, GridView & DetailsView Controls, Master Pages & Navigation, Security, Personalization & Themes, Web Parts, Mobile Device Support, SQL Cache Invalidation, Precompilation, Configuration & Administration and more.



Purchase and review at: <http://www.asp.net/whidbey>

# ASP.NET 2.0 Hands-On Labs

- Great Hands-on Walkthroughs
- Located in Petree Hall
- Proctors available to answer questions
- Nine Labs
  - Introduction
  - Data Controls
  - Master Pages & Site Navigation
  - Membership, Role Management & Security
  - Personalization
  - Web Parts
  - Mobile Apps
  - Administration, Configuration & Deployment
  - Tips & Tricks
- Can download from [www.asp.net/whidbey](http://www.asp.net/whidbey)



# ASP.NET Community

- <http://www.asp.net/whidbey> will have whitepapers, samples, slides and forums dedicated to ASP.NET Whidbey
- Email:
  - ScottGu@microsoft.com
- Blog:
  - <http://weblogs.asp.net/scottgu>





**PDC**<sup>03</sup>

Make the connection